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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/715,681	11/17/2000	Yoav Raz	EMS-00202	4765

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EXAMINER	
DADA, BEEMNET W	
ART UNIT	**PAPER NUMBER**
2435	
MAIL DATE	**DELIVERY MODE**
12/18/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/715,681	RAZ ET AL.	
	Examiner	Art Unit	
	BEEMNET W. DADA	2435	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 June 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-7,22,24-28,41,43-52 and 63-71* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-7,22,24-28,41,43-52 and 63-71* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This office action is in reply to an amendment filed on September 11, 2009. Claims 1, 3-7, 22, 24-28, 41, 43-52 and 63-71 are pending.

Response to Arguments

Applicant's arguments filed September 11, 2009 have been fully considered but they are not persuasive. Applicant argues that, the art on record fails to teach the determining and scanning steps without using file-based information, the file based information including information about file structure, file system and file types. Examiner disagrees.

Examiner would point out that, Stang teaches determining physical portions of the storage device that have been modified since a previous virus scan using information about the physical portions without using file-based information, the file based information including information about file structure, file system and file type and performing scanning without using the file-based information (i.e., every file on the hard disk, regardless of type, structure, or system, page 15, section Checkup). Examiner would further point out that the art on record teaches the claim limitations and therefore the rejection is respectfully maintained.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3-7, 22, 24-28, 41, 44-52, 63-66 and 71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Drew US 6,928,555 B1 in view of Stang David, "Comparison: Products to Detect changes to Programs", 1991 (hereinafter Stang) [submitted with Form 892/office action mailed on 04/21/2005].

As per claims 1, 41, 63, 65, 66 and 71, Drew teaches a computer implemented method of scanning a storage device for viruses, comprising:

determining, by the storage device, each track of the storage device that has been accessed for a write operation since a previous virus scan using information about tracks of the storage device (i.e., determining a file opened for a write access is actually written, column 3, lines 40-55 and column 4, lines 5-25),

providing, to an antivirus unit by the storage device, information indicating which tracks of the storage device have been accessed for a write operation since the previous virus scan (the antivirus unit in conjunction with operating system getting the file and/or memory space of the file that has been accessed for write operation, column 3, lines 40-55 and column 4, lines 5-25); and

scanning, by the antivirus unit using the information provided by the storage device, at least a portion of each track identified as having been accessed for a write operation since the previous virus scan for viruses (Note that scanning a file for a virus corresponds to scanning portions on the tracks of the storage device, column 3, lines 40-55 and column 4, lines 5-25).

Drew is silent on the determining step being performed without using file-based information, the file based information including information about file structure, file system and file type and performing scanning without using information the file-based information.

In an analogous system, Stang teaches determining physical portions of the storage device that have been modified since a previous virus scan using information about the physical portions without using file-based information, the file based information including information about file structure, file system and file type and performing scanning without using information the file-based information (i.e., every file on the hard disk, regardless of type, structure, or system, page 15, section Checkup).

It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to employ the teachings of Stang within the system of Drew in order to further enhance the security of the system.

As per claims 3 and 43, Drew fruther teaches the method, wherein the physical portions correspond to sectors of the storage device [column 3, lines 40-55 and column 4, lines 5-25].

As per claims 4 and 44, Drew further teaches the method, wherein the physical portions correspond to sub-portions of the storage device [column 3, lines 40-55 and column 4, lines 5-25].

Claims 1, 3-7, 22, 24-28, 41, 44-52, 63-66 and 71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Drew US 6,928,555 B1 in view of Stang David, "Comparison: Products to Detect changes to Programs", 1991 (hereinafter Stang) [submitted with Form 892/office action mailed on 04/21/2005] and further in view of Waldin et al. US 6,094,731 (hereinafter Waldin).

As per claims 5 and 45, Drew, further teaches scanning portions of a storage device to which a write operations have been directed (i.e., scanning a file for a virus corresponds to scanning portions on the tracks of the storage device) in accordance with information provided by the storage device [column 3, lines 40-55 and column 4, lines 5-25]. Drew is silent on creating a table that is indexed. Waldin teaches creating a table that is indexed according to each of the portions [fig 1, unit 10 and column 4, lines 4-8]. Waldin also teaches scanning for viruses when it has been determined that portions have been modified [column 4, lines 9-12], and calculating a new hash value upon determination of a modification [column 4, lines 58-60]. It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to employ the teaching of Waldin within the combination of Drew and Stang in order to enhance the efficiency of the system.

As per claims 6 and 7, Waldin further teaches method, wherein creating the table includes copying another table provided by the storage device [column 3, lines 50-55, figure 1, originating and recipient computers].

As per claims 46, 51 and 52 Drew further teaches the method, wherein said means for coupling includes means for coupling to only one storage device [column 3, lines 40-55 and column 4, lines 5-25].

As per claims 47-50, Drew further teaches the method, wherein said means for coupling includes means for coupling to more than one storage device [column 3, lines 40-55 and column 4, lines 5-25].

As per claims 22, 24-28 and 64, the claimed steps correspond to the functions of the elements of the method claims 1 and 3-7, which has been rejected above and thus rejected with the same reason applied thereto.

Claims 67-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over view of Drew US 6,928,555 B1 in view of Stang and further in view of Ruff et al. US 6,802,028 (hereinafter Ruff).

As per claims 67-70, Drew and Stang teach scanning a storage device for viruses as indicated above. Furthermore, Ruff teaches an antivirus unit included in a disk controller of a storage device, wherein the disk controller is a first disk controller of a plurality of disk controllers included in the storage device, the antivirus unit is a first antivirus unit of a plurality of antivirus units included in the storage device and each of said plurality of disk controllers includes a different one of said plurality of antivirus units [column 7, line 53 - column 8, line 34]. It could have been obvious to one having ordinary skill in the art at the time of applicant's invention to employ the teachings of Ruff within the combination of Drew and Stang to achieve a predictable result of including an antivirus unit in a disk controller.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BEEMNET W. DADA whose telephone number is (571)272-3847. The examiner can normally be reached on Monday - Friday (9:00 am - 5:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y. Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Beemnet W Dada/
Primary Examiner, Art Unit 2435
December 14, 2009